

IV. REMARKS

Claims 1-21 are pending in this case. Of these, all are rejected on various grounds, as follows: Claims 4, 7, 11, and 14 are rejected under 35 USC Section 112, first paragraph, for lack of enablement with respect to the claimed “optical member adapted to balance the optical path length...”; claims 5 and 12 are rejected under 35 USC Section 112, second paragraph, as being indefinite with respect to the claimed “first reflective element”; claims 6, 7, 13, 14, 17, 18, 19/12, 20, and 21 are rejected on the same indefiniteness grounds previously recited as being dependent upon the specifically rejected claims; claims 1-18 are rejected under 35 USC Section 102(b) as being anticipated by the disclosure of Du et al. US Patent No. 6,124,973; and claims 19-21 stand rejected under 35 USC Section 103(a) as being unpatentably obvious over the asserted combination of Du et al, *supra*, taken in view of Dane et al., US Patent No. 6,385,228.

For the following reasons, Applicant respectfully disagrees with the foregoing rejections.

Turning first to the rejection of claims 4, 7, 11, and 14 under Section 112, first paragraph, Applicant contends that the rejection is misapplied for the specification, at pages 12-13, as well as in the related FIG. 2, **clearly** discloses the claimed optical member, as follows:

“Referring now to **FIG. 2**, which depicts schematically a further embodiment of the present invention shown, by way of example, in combination with the apparatus of **FIGS. 1A and 1B**, it will be seen that the apparatus of this invention may further comprise an optical member **80** positioned along the path of the central beam portion **60** in order to balance the optical path length of the center beam portion **60** with that of the lateral beam portions **50** and **70**. The optical member **80** may comprise any of the numerous forms of such devices known to

those of skill in the art....” Page 12, line 22 through page 13, line 3 (*emphasis original*).

Respectfully, Applicant submits that the rejection is unquestionably traversed.

Addressing next the rejection of claims 5 and 12 (and, by dependency therefrom, claims 6, 7, 13, 14, 17, 18, 19/12, 20, and 21) under Section 112, second paragraph, Applicant respectfully submits that such rejection is traversed by the clarifying amendments to claims 5 and 12, by which the recited “first reflective element” has been clearly related to the previously recited “first reflective member.”

Turning then to the rejection of claims 1-18 as being anticipated by Du et al., it is the examiner’s contention that FIG. 10A of that reference shows all claimed elements. More specifically, the examiner, in reliance on the below-reproduced, altered **FIG. 10A** of Du et al., characterizes that reference as showing the following:

“A first reflective member [c] comprising at least a first reflective element [c1] positioned a fixed distance from each bar in the array, the at least first reflective element adapted to deflect a first portion [a1] of the output beam from each bar in the array in a first direction [-y direction] oriented at a first angle [0 degrees] in the slow axis direction and at a second angle [90 degrees] in the fast axis direction;

At least a second reflective member [d] comprising at least a first reflective element [d1] positioned a fixed distance from each bar in the array, the at least first reflective element of the second reflective member adapted to deflect the first portion of the output beam from each bar from the first direction [-y direction] to a second direction [-z direction] oriented in the Z axis direction;

And whereby the first portion [e] of the output beams of each bar in the array are oriented approximately parallel to the un-deflected remainder [a1] of the output beams of each bar, and the non-light-emitting areas are substantially eliminated from the output beams [two light beams are combined into one light beam].” Official Action, pp. 5-6 (*emphasis added*).

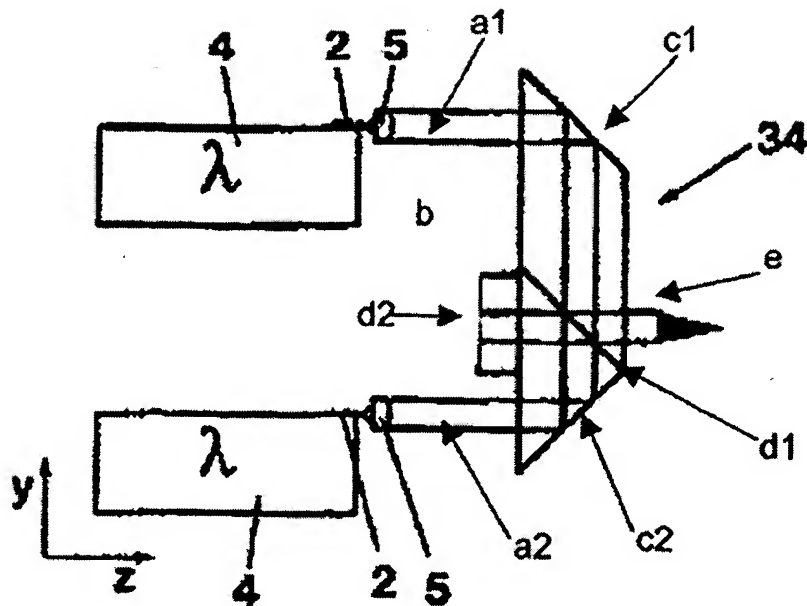


FIG. 10A

Respectfully, the foregoing represents a mischaracterization of the Du et al. references, as well as a misunderstanding of Applicant's claimed invention.

In relation to FIG. 10A, above, Du et al. disclose means for combining the entire radiation output from a pair of diode laser strips (2) with a polarizing system (34) comprising a beam divider and a λ quarter plate. *See* col. 9, lines 12-30. In so doing, Du et al clearly alter the direction of the **entire** output beams [a1 and a2, according to the examiner's reference numerals] of **both** of the pair of laser strips (2) via the polarizing system (34), such that there is, in fact, no un-deflected remainder in respect of the output beam of either strip. Furthermore, it is plain from the Du et al reference that the direction of the output beams [a1 and a2, according to the examiner's reference numerals] is initially altered by the alleged first reflective member (c, per the examiner's reference system) **only** to a direction oriented at an angle (90 degrees) in the y, or fast, axis.

By contrast, Applicant claims an apparatus for shaping **part** of the collective output beam of either a single strip of semiconductor lasers (claim 1) or each strip in a stacked array of such lasers (claim 8), the apparatus comprising a first reflective member including at least a first reflective element adapted to deflect a first **portion** of the output beam of **each** strip in a first direction oriented at a **first angle in the slow axis direction and at a second angle in the fast axis direction**; and at least a second reflective member including at least a first reflective element adapted to deflect the first **portion** of the output beam from **each** strip from the first direction to a second direction in the Z axis direction. By such reflective members, the output beam of each of the strip or array of strips comprises, approximately parallel-disposed, at least the first **portion and an un-deflected remainder** of the output beam.

To clarify the above distinctions as between the Du et al patent and the instant invention, Applicant has amended independent claim 1 to recite an apparatus for shaping part of the collective output beam of a strip of semiconductor lasers, the apparatus comprising a first reflective member including at least a first reflective element adapted to deflect a first portion of the output beam in a first direction oriented at a first **non-zero** angle in the slow axis direction and at a second **non-zero** angle in the fast axis direction, and whereby the output beam of the strip is shaped to define at least two beams comprising at least the first portion and a remainder of the output beam which is propagated along the Z axis without deflection by either of the first or at least second reflective members.

Applicant has similarly amended independent claim 8, which claim is more specifically directed to an apparatus for shaping part of the collective output beam of a plurality of semiconductor lasers comprising individual bars or strips stacked one on top of the other to form an array.

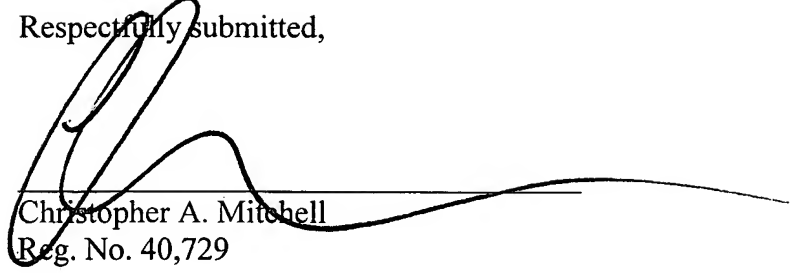
In view of the foregoing, Applicant respectfully submits that the related rejection as to dependent claims 2-7 and 9-18 is rendered moot. However, Applicant reserves the right to make amendments and/or arguments in respect of these claims should the rejection be continued.

Finally, as for the examiner's rejection of claims 19-21, Applicant likewise submits that the same is untenable in light of the failing of the base reference, Du et al, to teach the invention of claims 1-18. The foregoing notwithstanding, Applicant further submits that the teaching of Dane et al, taken alone or in any permissible combination with Du et al (or, for that matter, any other art of record), fails to render obvious (or anticipate) the invention of any of claims 1-21. Should the examiner nevertheless maintain the rejection, Applicant reserves the right to make amendments and/or arguments as necessary.

V. CONCLUSION

In view of the above, Applicant respectfully submits that the pending application is in condition for immediate allowance. Of course, the examiner is invited to contact Applicant's undersigned counsel at (734) 662-0270 if she should have any questions respecting this paper, or if a telephone interview might otherwise expedite the examination of this case.

Respectfully submitted,



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